

Abstract of the Disclosure

A system and method tracks the movements of a driver or passenger in a vehicle (ground, water, air, or other) and controls devices in accordance with position, motion, and/or body or hand gestures or movements. According to one embodiment, an operator 5 or passenger uses the invention to control comfort or entertainment features such the heater, air conditioner, lights, mirror positions or the radio/CD player using hand gestures. An alternative embodiment facilitates the automatic adjustment of car seating restraints based on head position. Yet another embodiment is used to determine when to fire an airbag (and at what velocity or orientation) based on the position of a person in a 10 vehicle seat. The invention may also be used to control systems outside of the vehicle. The on-board sensor system would be used to track the driver or passenger, but when the algorithms produce a command for a desired response, that response (or just position and gesture information) could be transmitted via various methods (wireless, light, whatever) to other systems outside the vehicle to control devices located outside the vehicle. For 15 example, this would allow a person to use gestures inside the car to interact with a kiosk located outside of the car.